REMARKS

Claims 1-6, 9-18, 21-28, and 31-33 are pending in the application. Claims 1, 6, 12-18 and 23 have been amended. Claims 34-39 have been added. Claims 34-39 find their basis throughout the Specification and Figures, and more particularly at paragraphs 0011, 0025, and 0031-0032. No new matter has been added. Accordingly, Claims 1-6, 9-18, 21-28, and 31-39 stand ready for allowance.

The Specification has been objected to in view of claim 23. Claim 12-18, 21-28 and 31-33 are rejected under §101. Claims 1-6, 9-18, 21-28, and 31-33 are rejected under §102(b). pending in the application. Claims 1, 3-6, 12, 14-16, 23, and 25-28 have been amended.

Reconsideration is respectfully requested in view of the amendments to the claims and the remarks.

Objections

Examiner has objected to the Specification for failing to provide antecedent basis for the claimed subject matter of Claim 23. Applicant disagrees and points to Figure 3 and paragraph 0030 for review by Examiner. However, to move prosecution forward, Applicant has also amended Claim 23 and the Specification to more particularly clarify Applicant's invention. Accordingly, Applicant believes the objection is traversed and respectfully requests removal of the rejection.

35 USC §101 Rejections

Examiner has rejected claims 12-18, 21-28 and 31-33 under 35 USC §101 because the claimed invention is not directed to statutory subject matter. Applicant disagrees with the rejection, but in order to move prosecution forward, has amended claims including 12 and 23 and believes the rejections are now traversed and the claims stand ready for allowance. Accordingly Applicant believes the rejection is traversed with respect to all dependent claims for reasons similar. Applicant respectfully requests removal of the rejection.

35 USC §102(a) Rejections

Examiner has rejected 1-6, 9-18, 21-28, and 31-33 as being anticipated by "Locking in DB2 for MVS/ESA Environment" (hereafter "LockDB") of 1996, from IBM.

Applicant respectfully disagrees.

Claim 1, as amended, recites a method for controlling concurrency of access to data in a database system having a database engine, data manager and database, the method comprising: providing for enabling and indexing of selective partition locking of a table; partitioning the table in the database system into a plurality of partitions; receiving a lock request having one or more statements for access to data in the database system, the lock request being a request for a page lock or a row lock for a corresponding row or page in the database system containing the data; determining a minimum lock state for each statement of the request; identifying a partition of the plurality of partitions that contains the row or the page in the database system containing the data; associating the lock request with a partition lock on the partition that contains the row or the page in the database system containing the data, the

partition lock selectively locking the partition at the minimum lock state that permits serialized access to data in the partition; and serially accessing the data in the partition using the partition lock, wherein otherwise locking by the partition lock is avoided.

Examiner has stated that LockDB provides for identifying a partition of the plurality of partitions that contains the row or the page in the database system containing the data as the LockDB provides for identifying a partition based on lock hierarchy at pages 11, 65-66. Applicant respectfully disagrees as the LockDB reference does not disclose such, but rather LockDB states: "Locks on these table spaces and index spaces are acquired only when they are used. Table spaces and index spaces that are required to be accessed only for enforcing referential constraints are not affected by the ACQUIRE(ALLOCATE) option of the BIND PLAN command. How long the locks are acquired for referential integrity checking operations is also a performance consideration. With the RELEASE(DEALLOCATE) option, they are released, like all other table spaces and index spaces, only when the plan terminates." (page 66). Applicant believes that the cited references by Examiner do not expressly state or disclose the element identified by the Examiner as being anticipated by the cited reference.

Examiner has also stated that the associating a lock requesting with a partition as set forth by the present invention is anticipated by the lock partition descriptions of the LockDB at pages 11, 48-50. Applicant respectfully disagrees as the LockDB reference does not disclose such, but rather LockDB present latching and not locking references. LockDB at page 50 states: "Page latching instead of locking is used for concurrency improvement, not necessarily for CPU time reduction. Depending on the

specific situation, there may be either a slight increase or a reduction in CPU time as a result of using page latch instead of lock." Latching of the LockDB is not locking of t present invention. Accordingly, Applicant believes that the cited references by Examiner do not expressly state or disclose the element identified by the Examiner as being anticipated by the cited reference.

Further Examiner has stated that the partition lock locking the partition at a lock state is presented by LockDB at pages 9-11, 50 and 66 with regard to locking for serialization. Applicant has been unable to find specific and express reference to a lock state as used in the present invention in the cited pages of the LockDB reference indicated by the Examiner. For reference, on the cited pages, the LockDB includes information concerning DB2 transaction locking, lock hierarchy, latching, and binding, but no disclosure of lock states. Accordingly, Applicant believes that the cited references by Examiner do not expressly state or disclose the element identified by the Examiner as being anticipated by the cited reference.

Additionally, Applicant has amended Claims 1, 12 and 23 to more clearly present the present invention. Basis for such may be found throughout the Specification Figures. No new matt has been added. Applicant believes that the LockDB reference, in view of such amendments, does not disclose, teach or otherwise suggest any of: providing for enabling and indexing of selective partition locking of a table or determining a minimum lock state for each statement of the request. Further the Lock DB reference does not disclose, teach or otherwise suggest; associating the lock request with a partition lock on the partition that contains the row or the page in the database system containing the data, the partition lock selectively locking the partition

at the minimum lock state that permits serialized access to data in the partition; and serially accessing the data in the partition using the partition lock, wherein otherwise locking by the partition lock is avoided.

Accordingly, Applicant believes that each and every element as presented in present invention is not present, disclosed or suggested in the LockDB reference. As such, Applicant believes that the LockDB reference fails to anticipate or render obvious the present invention as asserted.

Accordingly, Applicant believes that Claim 1 overcomes the Examiner's rejection and requests removal of the rejection. As Claims 12 and 23 are contextually similar to Claim 1, for reasons similar, Applicant believes Claims 12 and 23 also overcome the Examiner's rejection. Further as dependent claims depend variously from independent claims 1, 12 and 23, Applicant believes all dependent claims also overcome the rejection. Additionally, newly added claims, both in content and in dependence, similarly overcome the rejections. Applicant therefore believes all claims presented stand ready for allowance.

Should any unresolved issues remain or should the claims need any further clarifying amendments to expedite allowance of the pending application, the Examiner is invited to call the undersigned at the telephone number indicated below.

Please credit any overpayments and debit any underpayments to Deposit Account No. 02-2120.

Respectfully submitted,
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